

DRAFT

4. A charged particle beam apparatus system comprising a circuit pattern inspection apparatus that irradiates a charged particle beam on a plurality of areas of a circuit pattern, detects secondary charged particles generated from the circuit pattern to form images of the irradiated areas, and compares the images of the plurality of areas to thereby detect a defect or a foreign-particle in the circuit, and a charged particle beam apparatus that is used for observation or analysis of the defect specified by means of the pattern inspection apparatus,

wherein charging is formed by means of irradiation of the charged particle beam or carbon-base deposit is formed on the irradiated area as the result of interaction between the charged particle beam and gas that is remaining in the circuit pattern inspection apparatus or generated from the sample, and the charging or deposit is used as a mark in the charged particle beam apparatus,

wherein the charged particle beam is irradiated onto the circuit pattern including the defect or the foreign-particle such that a temperature of the circuit pattern is kept at a temperature higher than the environmental temperature so as to cause charging on the circuit pattern in the pattern inspection apparatus and to form a mark on the periphery of the defect or the foreign-particle in the circuit.

5. A method for forming an image in which a charged particle beam is scanned on a sample to form an image of the scanned area, wherein the charged particle beam is irradiated selectively onto a specified portion including the defect or the foreign-particle in a circuit such that a temperature of the portion is kept at a temperature higher than the environmental temperature and the charging formed by the irradiation is used as a mark in the image so as to cause charging on the specified portion that is different from charging of the scanned area other than the specified portion.

6. An inspection method in which a charged particle beam is scanned onto a semiconductor device in a first charged particle beam apparatus to form an image of the scanned area, the charged particle beam is irradiated selectively onto a specified portion including a defect or a foreign-particle such that a temperature of the portion is kept at a temperature higher than the environmental temperature so as to cause charging on the specified portion that is different from charging of the scanned area other than the specified portion, the semiconductor device is transferred to a second charged particle beam apparatus keeping the charging condition, and the charged particle beam is irradiated onto the portion to be inspected that is specified by the charging for inspection of the portion.

7. A charged particle beam apparatus system comprising a circuit pattern inspection apparatus that irradiates a charged particle beam on a plurality of areas of a circuit pattern, detects secondary charged particles generated from the circuit pattern to form images of the irradiated areas, and compares the formed images of the plurality of areas to thereby detect a defect or a foreign-particle in the circuit, and comprising a charged particle beam apparatus that irradiates a charged particle beam onto the defect, the area including foreign-particle, or the peripheral area that has been detected by means of the circuit pattern inspection apparatus and detects charged particles released from the defect or the area including foreign-particle to thereby form an image of the defect or the area including foreign-particle,

wherein a mark for specifying the foreign-particle or defect detected by means of the circuit pattern inspection apparatus is formed by means of irradiation of the charged particle beam so that charging on the mark is different from that on the area other than the mark, and the field of view is matched for forming an image of the defect

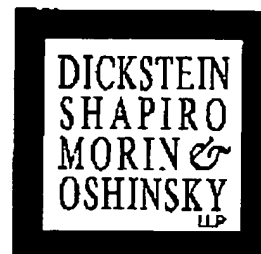
or the area including foreign-particle in the charged particle beam apparatus based on the formed mark, and

wherein the charged particle beam is irradiated onto a portion including the defect or the foreign-particle such that a temperature of the portion is kept at a temperature higher than the environmental temperature.

9. A circuit pattern inspection apparatus that irradiates a charged particle beam onto a plurality of areas of a circuit pattern and detects secondary charged particles released from the circuit pattern to form an image of the irradiated areas, and compares a plurality of formed images to detect a defect or a foreign-particle of the circuit,

wherein a mark that can be used for specifying the detected defect or foreign-particle of the circuit is formed in the form of charging by means of irradiation of the charged particle beam, and

wherein the charged particle beam is irradiated onto a portion including the defect or the foreign-particle such that a temperature of the portion is kept at a temperature higher than the environmental temperature.

FAX TRANSMISSIONDATE: March 1, 2006CLIENT NO.: H6808.0027MESSAGE TO: Examiner B. SouwCOMPANY: USPTOFAX NUMBER: (571) 273-2482PHONE: (571) 272-2482FROM: Mark J. Thronson

TIMEKEEPER NO.: _____

PHONE: (202) 775-4742PAGES (Including Cover Sheet): 4 HARD COPY TO FOLLOW: ☐ YES ☒ NO

SENT BY: _____

DATE/TIME: _____

MESSAGE:

Attached are draft versions of claims 4-7 and 9, concerning Application No. 10/700,525, incorporating the changes specified by the examiner. The examiner is authorized to amend claims 4-7 and 9 as shown in the attached sheets, provided the changes place the application in condition for allowance.

Claims 3 and 4 appear to be in full compliance with 35 U.S.C. § 112. Claim 3, for example, refers to a charged particle beam apparatus system. The recited system comprises a charged particle beam apparatus. There does not appear to be any ambiguity in the claims.

Allowance of the application with claims 3-7 and 9 is solicited.

Mark J. Thronson
Reg. No. 33,082

If your receipt of this transmission is in error, please notify this firm immediately by collect call to our Facsimile Department at 202-861-9106, and send the original transmission to us by return mail at the address below.

This transmission is intended for the sole use of the individual and entity to whom it is addressed, and may contain information that is privileged, confidential and exempt from disclosure under applicable law. You are hereby notified that any dissemination, distribution or duplication of this transmission by someone other than the intended addressee or its designated